

BIOGRAPHICAL SKETCH

NAME: Stephen H. Gavett, Ph.D.

POSITION TITLE: Research Biologist

EDUCATION/TRAINING

| Institution | Degree | Year | Field of Study |
|---|--------|------|----------------|
| University of Virginia, Charlottesville, VA | B.A. | 1980 | Chemistry |
| University of Rochester, Rochester, NY | M.S. | 1987 | Toxicology |
| University of Rochester, Rochester, NY | Ph.D. | 1989 | Toxicology |

PROFESSIONAL EXPERIENCE:

- 1980 - 1983 Chemist, Triangle Resource Industries (presently GSX Services), Laurel, MD
- 1989 - 1991 Postdoctoral Fellow, Toxicology. Haskell Laboratory for Toxicology and Industrial Medicine, E.I. du Pont de Nemours & Co., Inc., Newark, DE.
- 1991 - 1994 Postdoctoral Fellow, Physiology and Immunology. The Johns Hopkins University School of Hygiene and Public Health, Environ. Health Sci. Div., Baltimore, MD.
- 1995 - 2001 Research Biologist, GS-12. Pulmonary Tox. Branch, Experimental Tox. Div., National Health and Environmental Effects Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Research Triangle Park, NC.
- 2001 - Research Biologist, GS-13. PTB, ETD, NHEERL, ORD, U.S. EPA, RTP, NC.

PROFESSIONAL SOCIETIES:

- 1989 - Society of Toxicology (SOT), (full member 1997); Inhalation Specialty Section
- 1995 - American Thoracic Society (ATS), active member; Environ. and Occupational Health assembly

SELECTED AWARDS AND HONORS:

- U.S. EPA Special Commemorative Award for September 11 Activities - Lead, ORD World Trade Center Particulate Matter Toxicological Assessment Team (2002)
- U.S. EPA Honor Award Gold Medal. National Health and Environmental Effects Research Laboratory PM Health Research Team (2003)

INVITED LECTURES/SYMPOSIA (selected):

- "Metals and Asthma." SOT Continuing Educ. Course, Philadelphia, PA, March 19, 2000.
- "Effects of Particulate Matter Air Pollution on Allergy and Asthma." Howard Hughes Internship program, North Carolina State University, Raleigh, NC, July 17, 2001.
- "Identifying the effects of air pollution from specific sources; A toxicological perspective." Internatl. Soc. Environ. Epidemiol., Garmisch-Partenkirchen, Germany, September 5, 2001.
- "Respiratory Effects of Particulate Matter in Allergic Mice". Pulmonary and Critical Care Research Conference, Duke University, Durham, NC, October 1, 2002.
- "Respiratory Effects of Particulate Matter in Allergic Mice". Pulmonary and Critical Care Research Conference, Duke University, Durham, NC, October 1, 2002.
- "Evaluating the potential toxicity of World Trade Center dust." First World Congress on Risk, Society for Risk Analysis, Brussels, Belgium, June 23, 2003.

ASSISTANCE/LEADERSHIP PROVIDED TO THE SCIENTIFIC COMMUNITY:

- 2001-2003 ATS Environmental and Occupational Health assembly program committee
- Sep. 2001 Advisor, Netherlands Aerosol Program document: health risks of PM in ambient air
- 2002-2003 Organize and/or co-chair symposium, poster-discussion sessions, ATS, Atlanta and Seattle
- 2002-2004 SOT Inhalation Specialty Section elected councillor
- March 2003 Organize and co-chair World Trade Center symposium, SOT, Salt Lake City, UT

ASSISTANCE/LEADERSHIP PROVIDED TO THE AGENCY:

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|------------|--|
| Oct. 2001 | ATSDR-Region 1 New England State Health meeting: overview of PM toxicology |
| 1999-2002 | Major role, development of EPA ORD Asthma Research Strategy |
| 2001-2003 | Lead, ORD World Trade Center Particulate Matter Toxicological Assessment Team |
| April 2002 | Briefed ORD Assistant Administrator on World Trade Center toxicology research. |
| May 2002 | Organized World Trade Center research conference for ORD reps, RTP, NC |

PUBLICATIONS (from Jan. 1, 1998 to present, out of a total of 31 publications):

1. Gavett, S. H., S. L. Madison, P. E. Scarborough, W. Qu, J. E. Boyle, P. C. Chulada, H. F. Tiano, C. A. Lee, R. Langenbach, V. L. Roggli, and D. C. Zeldin. Allergic lung responses are increased in prostaglandin H synthase deficient mice. *J. Clin. Invest.* 104:721-731, 1999
2. Gavett, S. H., S. L. Madison, M. A. Stevens, and D. L. Costa. Residual oil fly ash amplifies allergic cytokines, airway responsiveness, and inflammation in mice. *Am. J. Respir. Crit. Care Med.* 160:1897-1904, 1999.
3. Ward, M. D. W., S. L. Madison, D. M. Sailstad, S. H. Gavett, and M. J. K. Selgrade. Allergen-triggered airway hyperresponsiveness and lung pathology in mice sensitized with the biopesticide *Metarhizium anisopliae*. *Toxicology* 143: 141-154, 2000.
4. Ward, M. D. W., S. L. Madison, D. L. Andrews, D. M. Sailstad, S. H. Gavett, and M. J. K. Selgrade. Comparison of respiratory responses to *Metarhizium anisopliae* extract using two different sensitization protocols. *Toxicology* 147: 133-145, 2000. Veronesi, B., M. Oortgiesen, J. Roy, J. D. Carter, S. A. Simon, and S. H. Gavett. Vanilloid (capsaicin) receptors influence inflammatory sensitivity in response to particulate matter. *Toxicol. Appl. Pharmacol.* 169:66-76, 2000.
5. Gavett, S. H., and H. S. Koren. The role of particulate matter in exacerbation of atopic asthma. *Int. Arch. Allergy Immunol.* 124:109-112, 2001.
6. Koren, H. S., B. Axelrad, L. Folinsbee, S. Gavett, B. Henschel, L. Kolb, S. McMaster, L. Neas, J. Nelson, W. Steen, K. Teichman, and S. Vesper. Asthma research strategy. EPA 600/R-01/061, Cincinnati, OH. 47 p., Sept. 2002. (Peer reviewed EPA Report). Available: http://oaspub.epa.gov/eims/eimscomm.getfile?p_download_id=36310
7. Savov, J. D., S. H. Gavett, D. M. Brass, D. L. Costa, and D. A. Schwartz. Neutrophils play a critical role in the development of LPS-induced airway disease. *Am. J. Physiol: Lung Cell Mol. Physiol.* 283: L952-L962, 2002.
8. Viana, M. E., N. H. Coates, S. H. Gavett, M. K. Selgrade, S. J. Vesper, and M. D. W. Ward. An extract of *Stachybotrys chartarum* causes allergic asthma-like responses in a BALB/c mouse model. *Toxicol. Sci.* 70:98-109, 2002.
9. Gavett, S. H., N. Haykal-Coates, J. K. McGee, J. W. Highfill, A. D. Ledbetter, and D. L. Costa. Toxicological effects of fine particulate matter derived from the destruction of the World Trade Center. EPA/600/R-02/028, Cincinnati, OH. 53 pages, December 2002. (Peer reviewed EPA Report). Available: http://www.epa.gov/nheerl/wtc/WTC_report_7b3i.pdf
10. Gavett, S. H. World Trade Center fine particulate matter – chemistry and toxic respiratory effects. *Environ. Health Perspect.* 111:971, 2003. [Summary article; online 12 February 2003].
11. McGee, J. K., L. C. Chen, M. D. Cohen, G. R. Chee, C. M. Prophete, N. Haykal-Coates, S. J. Wasson, T. L. Conner, D. L. Costa, and S. H. Gavett. Chemical analysis of World Trade Center fine particulate matter for use in toxicologic assessment. *Environ. Health Perspect.* 111:972-980, 2003. [Online 20 November 2002].
12. Gavett, S. H., N. Haykal-Coates, J. W. Highfill, A. D. Ledbetter, L. C. Chen, M. D. Cohen, J. R. Harkema, J. G. Wagner, and D. L. Costa. World Trade Center fine particulate matter causes respiratory tract hyperresponsiveness in mice. *Environ. Health Perspect.* 111:981-991, 2003. [Online 20 November 2002].
13. Gavett, S. H., N. Haykal-Coates, L. B. Copeland, J. Heinrich, and M. I. Gilmour. Metal composition of ambient PM_{2.5} influences severity of allergic airways disease in mice. *Environ. Health Perspect.* doi:10.1289/ehp.6300. Available: <http://ehpnet1.niehs.nih.gov/docs/2003/6300/abstract.html>. [Online 27 May 2003].
14. Brass, D. M., J. D. Savov, S. H. Gavett, N. Haykal-Coates, and D. A. Schwartz. Subchronic endotoxin inhalation causes persistent airway disease. *Am. J. Physiol. (Lung Cell. Mol. Physiol.)* doi:10.1152/ajplung.00001.2003. Available: <http://ajplung.physiology.org/cgi/content/abstract/00001.2003v1> [Online 6 June 2003].